

## **APPENDIX J - PARACHUTE OPERATIONS**

### **J.1 - PURPOSE**

To outline procedures, requirements, and responsibilities of aircraft crew members during parachuting operations. The purpose of this section is to establish the procedures to be used during the actual parachute drop situation.

### **J.2 - SCOPE**

To ensure all crew members are familiar with procedures and requirements involved in parachute operations.

### **J.3 - PROCEDURES.**

- The only parachute operations that will be performed by CANG aircraft will be administrative/non-tactical, and must be approved by the Adjutant General prior to drops.
- All jump operations will be made in DAY VFR CONDITIONS.
- Parachutes will not jump with any extra equipment.
- The jumpmaster will be a static jumpmaster and is required for all jump missions.
- A qualified crew chief should be on all jump missions.
- Aviators will not perform PC duties until they have performed pilot duties during paradrop missions and the task is on the CTL and have been evaluated on that task.
- Pilots, co-pilots, crew chiefs, and jumpmasters participating in parachute operations will be thoroughly briefed by an approved Briefing Officer.
- The maximum number of parachutists per aircraft will be six.
- The jumpmasters will furnish their own helmet or headset and use for each jump mission.
- All crew members will have full flight gear, to include training crew chief. Only one training crew chief per aircraft will be allowed on a jump.
- Extra personnel will not be carried on the aircraft.
- Jumps will not be conducted when the surface wind velocity on the drop zone exceeds ten knots including gusts. Maximum allowable winds aloft at jump altitudes will not exceed thirty knots. The pilot will make the determination to jump on winds aloft; however, the MACO, Safety Officer, and jumpmaster will be responsible for jump winds on the drop zone. The pilot will advise the jumpmaster if he/she feels the winds are in excess of ten knots on the ground.
- The jump altitude will not be less than 1,500 feet AGL.
- An airspeed will be maintained between fifty knots (minimum) and seventy knots (maximum). Seventy knots is preferable because of the extra delay in chute deployment at slower airspeeds.
- It is the responsibility of the supported Unit Commander of MACO to acquire all airspace clearance and FAA notification in accordance with FAR part 105. The pilot-in-command will ensure that the MACO has complied with the FAR.
- The pilot will ensure that the proper altitude, airspeed, and ground track are maintained throughout the jump sequence. The jumpmaster will ensure that the proper visual indicators are present at the DZ or radio communication is established prior to giving the "GO" command.
- The pilot must be aware of and expect rapid shifts of center of gravity during the exit of parachutists.

- The crew chief and jumpmaster will wear harness restraint equipment while conducting jump operations or be seated in a seat with seat belt fastened.
- Loose trail formations will be the only formation used for paradrop missions. The aircraft will be spaced one minute apart.
- It is the responsibility of the support Unit Commander to acquire all land agreements. If helicopters are to land on the drop zone or if the marshalling area is on private property the land agreements will be received by the State Aviation Officer prior to the mission being approved.
- Aircraft will not rapid refuel while participating in parachute operations.
- A medevac helicopter/ground ambulance will be in close proximity to the DZ prior to drop operations and will remain on station until all jumpers are accounted for.

## **J.4 - REQUIRED BRIEFINGS.**

### **J.4.1 - CREW BRIEFING.**

- The pilot-in-command will brief his/her crew prior to departing for a jump mission. He/she will ensure that he/she has harness restraint equipment, seat belts, and tape.
- The pilot-in-command will check to see if each crew member understands his/her responsibilities.
- The pilot-in-command of each aircraft will ensure the crew chief understands how he/she must prepare the aircraft for jumping.

### **J.4.2 - PRE-JUMP BRIEFING.**

- The following officers and NCOs will attend a pre-jump airborne operational briefing to be conducted by the Airborne Commander proponent for the operation. The crew chief should finish preparing the helicopter at this time for jumping in accordance with paragraph three of this section.
  - (1) MACO
  - (2) Air Mission Commander
  - (3) Jumpmasters
  - (4) Aircraft Commanders

### **J.4.3 - MACO/PILOT SAFETY BRIEFING.**

- The MACO will be responsible to ensure that this briefing is given to all jump personnel, jumpmasters, pilots, co-pilots, and crew chiefs who will participate, and that the pilot is furnished a copy of passenger manifest.
  - (1) The MACO will cover items covered by this SOP but will include:
    - (a) Total number of parachutists to be dropped.
    - (b) When parachutists are to begin loading.
    - (c) Drop zone information.
    - (d) Drop zone marking and pathfinder control.
    - (e) Air-ground communication to include frequency, call signs, and pyrotechnics.
  - (2) The pilot-in-command of the mission will cover the items listed in the Operator's Manual, as pertains to parachute operations plus the following mentioned items:
    - (a) ID Tags check
    - (b) Equipment allowed on helicopter
    - (c) Jumpers will wear chin straps attached to their helmet

- (d) Entry and exit of aircraft. All personnel will enter and exit from the front (to include the ground personnel).
- (e) Seating. The jumpmaster will place jump personnel where he/she wants them inside the aircraft. No one will move from that position.
- (f) Movement inside the aircraft should be restricted. Crowded conditions could result in entanglement of static lines and premature activation of a parachute.
- (g) Seatbelts. Only the jumpmaster will advise the parachutists when the seatbelts can be unfastened.
- (h) Emergency exits, equipment, landing
- (i) Towed Jumper. The pilot-in-command of the aircraft will make the decision to cut or land with a towed jumper. If the jumper is conscious he/she should place a hand on top of his/her helmet. Caution: The jumpers should be cautioned that if they become attached to the helicopter they should not pull their reserve. The pilot should maintain his/her altitude and stay over the DZ if at all possible.
- (j) Medevac Hospital. The pilot-in-command will ensure that all personnel are aware of the hospital or airfield which will be used if there is an injury.
- (k) Cancellation of Jump. If the jump is canceled for any reason the jumpmaster will ensure that the jumpers' safety belts are locked. The jumpers will remain in their position within the aircraft until it has landed and the jumpmaster has unhooked their static line and safety belt. Red smoke activated by ground personnel will be the visual signal that an emergency exists in the DZ or that the mission should be aborted and no drop of parachutist will be made.
- (l) If a parachute prematurely opens within the aircraft all persons should try to grab the parachute to prevent its deployment beyond the door of the aircraft. The pilot should slow his/her airspeed and land at once. The reserve parachute handle should be guarded at all times by covering it with the left hand across the front without grasping it.

#### **J.4.4 - PILOT/JUMPMASER BRIEFING.**

- The following officers and EM will attend the Pilot/Jumpmaster Briefing:
  - (a) Pilot-in-command of aircraft
  - (b) Jumpmaster who will participate in jump operations (for aircraft).
  - (c) Co-pilot
  - (d) Crew chief
- The following items will be covered by the pilot-in-command:
  - (a) Special restrictions and requirements
  - (b) In-flight procedures
  - (c) The pilot-in-command will check the qualifications of the co-pilot, crew chief, and jumpmaster prior to a jump mission. The pilot will specifically check the jumpmaster and crew chief to see if they understand established procedures.

## **J.5 - PREPARING THE AIRCRAFT FOR JUMP.**

- The supporting aviation unit will prepare the helicopter for jump operations. Preparations will normally be accomplished in advance by personnel from the Facility Maintenance Shop.
- Preparation will be in accordance with Chapter 6, Section III, TM 57-220, unless specified otherwise in this SOP.
- The ground handling wheel mounting brackets on both landing skids (UH-1H) will be padded and taped over.
- All external weapons mounts will be removed.
- Cargo door will be left closed and untaped while enroute to the marshalling area. Upon arrival at the marshalling area the two (UH-1H) small cargo doors will be removed from the helicopter and both main cargo doors will be locked in the open position and taped IAW TM 57-220.
- All rear seats will be removed from the helicopters except the two rear jump seats in the transmission wells.
- All loose items will be removed from the aircraft to include tie-downs, aircraft storage box, crew equipment, hats, etc. The pilot will ensure that he/she keeps IFR Supplement, approach plate, and enroute chart for medevac purposes.
- All firewell and transmission bulkhead sound absorbing blankets will be removed.
- Both gunner's foot mike switches will be removed. Wire and hole will be taped over.
- Prior to conducting jump operations the pilot and the jumpmaster will conduct a joint inspection of the aircraft to ensure that all preparation requirements of this SOP and TM 57-220 have been accomplished and aircraft is ready to conduct jump operations. All discrepancies noted will be corrected prior to jump or the helicopter will not be utilized. If discrepancies cannot be corrected, the helicopter will not be utilized.
- Pad and tape right and left edge of rear center bulkhead.

## **J.6 - INFLIGHT PROCEDURES.**

- The PC will advise jumpmaster when to board each stick. The stick will initially stop in front of helicopter and wait for the jumpmaster's signal to board.
- The jumpmaster will place each individual jumper inside the helicopter, attached their snap hook to the anchor line cable, insert safety pin, and fasten their safety belts.
- The crew chief will assist the jumpmaster and will be responsible that all safety belts are fastened prior to takeoff.
- The jumpmaster and the crew chief will then fasten their safety harnesses to the floor tie down hooks, fasten their safety belts, and advise the PC.
- When the aircraft has reached an altitude of 1,000 feet AGL the pilot will advise the jumpmaster. The jumpmaster will then make his/her final preparations for the jump command.
- When the helicopter is at drop altitude the pilot will advise the jumpmaster that the jumpers can unfasten their seatbelts. Note: Once the jumpers' seatbelts are unfastened and an emergency occurs, the jumpmaster should have the jumpers jump if directed by the pilot. Should the jumpmaster lose communication with the pilot then the decision to jump rests with the jumpmaster.
- When the helicopter reaches the four minute checkpoint the pilot will notify the jumpmaster who will start his/her jump command sequence.
- The pilot will notify the jumpmaster when the helicopter reaches the ten second checkpoint.

- The jumpmaster will ensure that the proper visual indicators are present on the DZ or radio contact is established prior to giving the "GO" command.
- When all jumpers have cleared the aircraft the crew chief and jumpmaster will pull the three deployment bags in on their respective sides and secure them. Caution: At no time during flight will the static line snap hook be disconnected from the aircraft anchor line cable.
- If parachutes are equipped with automatic (barometric) opening devices and the jump is aborted, that automatic opening devices is disarmed immediately before descent is made.
- Static lines and deployment bags should be retrieved as soon as the static line from the last parachutist is clear and trailing aft at the door.
- When the crew chief and jumpmaster have secured their three deployment bags they will return to their position, fasten their safety belts and advise the pilot.
- The pilot will descend and land.
- The safety pin and snap hooks will not be disconnected until the helicopter has landed and the pilot instructs the crew chief and jumpmaster to unhook them.

**Caution:**

*The pilot will not allow the snap hook to be disconnected until he/she has landed, the collective is full down, N-2 is at 5,500 RPM (UH-1H), and the helicopter will not be moved any more.*

- When the pilot advises the crew chief and jumpmaster that they can disconnect the snap hooks, they will gather their three static lines and deployment bags and give them to ground personnel assigned by the MACO to collect them from the aircrew. They will be placed in a kit bag by the ground personnel inside the helicopter. Caution: The two ground personnel will approach and depart the helicopter from the front each time. The exchange of the static lines and deployment bags will be accomplished within the helicopter.